CLAIMED INVENTION

We claim:

1   1.   A method comprising:

2   calendaring a plurality of virtual connections for processing, each virtual

3   connection calendared to a particular time period such that the virtual

4   connections are not calendared to at least one time period;

5   storing a plurality of virtual connection addresses in a cache memory; and

6   processing a virtual connection corresponding to one of the plurality of

7   virtual connection addresses during one of the at least one time periods.

1   2.   The method of claim 1, wherein the most recently processed calendared

2   virtual connection is stored in the cache memory.

1   3.   The method of claim 1, wherein virtual connections corresponding to the

2   virtual connection addresses stored in the cache memory are processed in a

3   round-robin fashion.

1   4.   The method of claim 1, further comprising:

2   processing a calendared virtual connection; and

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3   evaluating the processed calendared virtual connection such that if the

4   processed calendared virtual connection meets evaluation criteria the address of

5   the processed calendared virtual connection is added to the cache memory.

1   5.   The method of claim 4, wherein evaluating comprises:

2   determining that the address of the processed calendared virtual

3   connection is not currently in the cache memory;

4   determining that the processed calendared virtual connection has more

5   data to transmit; and

6   determining that a recipient can receive more data.

1   6.   The method of claim 4, wherein the address of a processed calendared

2   virtual connection meeting the evaluation criteria is stored in a first cache

3   memory position.

1   7.   An apparatus comprising:

2   means for calendaring a plurality of virtual connections for processing,

3   each virtual connection calendared to a particular time period such that the

4   virtual connections are not calendared to at least one time period;

5   means for storing a plurality of virtual connection addresses in a cache

6   memory; and

7   means for processing a virtual connection corresponding to one of the

8   plurality of virtual connection addresses during one of the at least one time

9   periods.

1   8.   The apparatus of claim 7, wherein the most recently processed calendared

2   virtual connection is stored in the cache memory.

1   9.   The apparatus of claim 7, wherein virtual connections corresponding to

2   the virtual connection addresses stored in the cache memory are processed in a

3   round-robin fashion.

1   10.   The apparatus of claim 7, further comprising:

2   means for evaluating the processed calendared virtual connection such

3   that if the processed calendared virtual connection meets evaluation criteria the

4   address of the processed calendared virtual connection is added to the cache

5   memory.

1   11.   The apparatus of claim 10, wherein evaluating comprises:

2   determining that the address of the processed calendared virtual

3   connection is not currently in the cache memory;

4   determining that the processed calendared virtual connection has more

5   data to transmit; and

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6   determining that a recipient can receive more data.

1   12.   The apparatus of claim 10, wherein the address of a processed calendared

2   virtual connection meeting the evaluation criteria is stored in a first cache

3   memory position.

1   13.   A machine-readable medium that provides executable instructions, which

2   when executed by a processor, cause said processor to perform a method

3   comprising:

4   calendaring a plurality of virtual connections for processing, each virtual

5   connection calendared to a particular time period such that the virtual

6   connections are not calendared to at least one time period;

7   storing a plurality of virtual connection addresses in a cache memory; and

8   processing a virtual connection corresponding to one of the plurality of

9   virtual connection addresses during one of the at least one time periods.

1   14.   The machine-readable medium of claim 13, wherein the most recently

2   processed calendared virtual connection is stored in the cache memory.

1   15.   The machine-readable medium of claim 13, wherein virtual connections

2   corresponding to the virtual connection addresses stored in the cache memory

3   are processed in a round-robin fashion.

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1   16.   The machine-readable medium of claim 13, further comprising:

2   processing a calendared virtual connection; and

3   evaluating the processed calendared virtual connection such that if the

4   processed calendared virtual connection meets evaluation criteria the address of

5   the processed calendared virtual connection is added to the cache memory.

1   17.   The machine-readable medium of claim 16, wherein evaluating comprises:

2   determining that the address of the processed calendared virtual

3   connection is not currently in the cache memory;

4   determining that the processed calendared virtual connection has more

5   data to transmit; and

6   determining that a recipient can receive more data.

1   18.   The machine-readable medium of claim 16, wherein the address of a

2   processed calendared virtual connection meeting the evaluation criteria is stored

3   in a first cache memory position.

1   19.   An apparatus comprising:

2   a virtual connection calendaring unit for calendaring a plurality of virtual

3   connections for processing, each virtual connection calendared to a particular

4   time period such that the virtual connections are not calendared to at least one

5   time period;

6   a virtual connection address storage unit for storing a plurality of virtual

7   connection addresses in a cache memory; and

8   a virtual connection processing unit to process a virtual connection

9   corresponding to one of the plurality of virtual connection addresses during one

10   of the at least one time periods.

1   20.   The apparatus of claim 19, wherein the most recently processed

2   calendared virtual connection is stored in the cache memory.

1   21.   The apparatus of claim 12, wherein virtual connections corresponding to

2   the virtual connection addresses stored in the cache memory are processed in a

3   round-robin fashion.

1   22.   The apparatus of claim 19, further comprising:

2   an evaluation unit for evaluating the processed calendared virtual

3   connection such that if the processed calendared virtual connection meets

4   evaluation criteria the address of the processed calendared virtual connection is

5   added to the cache memory.

1   23.   The apparatus of claim 22, wherein evaluating comprises:

2   determining that the address of the processed calendared virtual

3 connection is not currently in the cache memory;

4   determining that the processed calendared virtual connection has more

5 data to transmit; and

6   determining that a recipient can receive more data.

1   24.   The apparatus of claim 22, wherein the address of a processed calendared

2 virtual connection meeting the evaluation criteria is stored in a first cache

3 memory position.